AMENDMENTS TO THE CLAIMS

1. **(Canceled)**

2. **(Currently amended)** A method for making microarrays comprising the steps:

a) subjecting ~~the~~ a surface of a solid support to an oxidation of olefinic groups present on said surface in an aqueous solution selected from the group consisting of an aqueous permanganate solution, an aqueous periodate solution, and an aqueous permanganate and periodate solution in order to allow the formation of aldehyde functions upon the surface of said solid support as an end product of said oxidation; and

b) covalently binding upon said aldehyde functions capture ~~molecules~~ DNA nucleotide sequences designed for the detection, the identification, the quantification and/or the recovery of complementary target biological or chemical molecules of interest; said covalent binding resulting in an array comprising a density of at least 4 or more discrete regions/cm^2 of solid support surface, each of said discrete surface regions being bound with a species of said capture ~~molecules~~ DNA nucleotide sequences and wherein at least 220 fmole of DNA molecules/cm^2 are fixed to the surface of said solid support.

3. **(Canceled)**

4. **(Canceled)**

5. **(Previously Presented)** The method according to claim 2, wherein the solid support surface has been previously modified by the addition of olefinic groups upon said surface.

6. **(Previously Presented)** The method according to claim 2, wherein the solid support surface is made of a glass layer.

7. **(Original)** The method according to claim 6, wherein the surface of the glass layer is modified by the addition of olefinic silane.

8. **(Canceled)**

9. **(Canceled)**

10. **(Currently amended)** The method according to claim ~~8~~ 2, wherein the capture ~~molecules are chemical molecules~~ DNA nucleotide sequences are able to bind specific target chemical molecules obtained by combinatorial chemistry.

11. **(Withdrawn)** A microarray having at least one surface bearing olefinic groups able to form, following oxidation, aldehyde functions suitable for a binding of captured molecules designed for a binding detection, the identification, the quantification and/or the recovery of complementary target biological or chemical molecules of interest; said covalent binding resulting in an array comprising a density of at least 4 discrete regions/cm^2 of solid support surface, each of said discrete surface regions being bound with a species of capture molecules.

12. **(Withdrawn)** A method for making microarrays according to claim 11 comprising the steps:

a) subjecting the surface of a solid support to an oxidation of chemical groups present on said surface in order to allow the formation of aldehyde functions upon the surface of said solid support; and

b) covalently binding upon said aldehyde functions capture molecules designed for the detection, the identification, the quantification and/or the recovery of complementary target biological or chemical molecules of interest; said covalent binding resulting in an array comprising a density of at least 4 or more discrete regions/cm^2 of solid support surface, each of said discrete surface regions being bound with a species of capture molecules.

13. **(Currently Amended)** The method of Claim ~~1~~ 2, wherein step (b) is performed by an arrayer.